

REMARKS

REJECTION UNDER 35 U.S.C. §103:

In the Office Action at pages 2-5, the Examiner rejected claims 5-9 and 12 under 35 U.S.C. §103 (a) as being unpatentable over USPN 6,046,742 (Chari; hereafter referenced as Chari) and USPN 6,219,628 (Kodosky et al.; hereafter referenced as Kodosky).

It is respectfully submitted that Chari (as admitted by the Examiner) does not disclose that a graphical user interface can be applied to software components of an industrial automation system. Although the Examiner submits that application of a graphical user interface to software components of an industrial automation system would be obvious in view of the teachings of Kodosky, it is respectfully submitted that Kodosky teaches configuring an instrument to perform measurement functions utilizing conversion of graphical programs into **hardware** implementations, in contrast to the present invention's adjustment of parameters of a **software** component. For example, claim 1 of Kodosky recites, after the preamble:

creating a graphical program, wherein the graphical program implements the measurement function, wherein the graphical program includes a front panel portion and a block diagram portion, wherein the front panel portion operates as a front panel for the instrument;

generating a hardware description based on the block diagram portion of the graphical program, wherein the **hardware description describes a hardware implementation of the block diagram portion of the graphical program;**

configuring the programmable hardware element in the instrument utilizing the hardware description **to produce a configured hardware element**, wherein the **configured hardware element implements a hardware implementation of the block diagram portion of the graphical program;**

compiling the front panel portion into executable code for execution by a processor and storing the executable code in a memory;

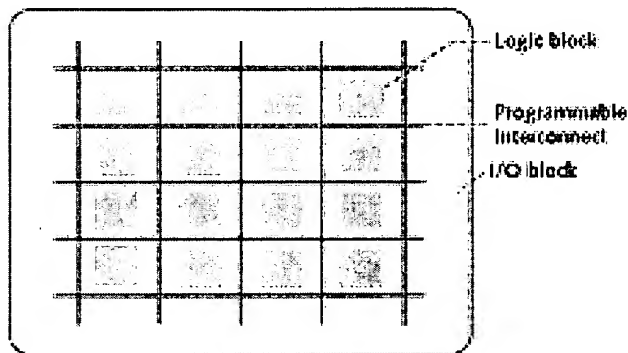
the instrument acquiring a signal from an external source after said configuring;

the **programmable hardware element** in the instrument executing to perform the measurement function on the signal; and

the processor executing the executable code from the memory to present the front panel portion on a display during the **programmable hardware element** in the instrument executing to perform the measurement function on the signal.
(emphasis added)

In col. 10, lines 44-47, Kodosky recites: "In the preferred embodiment, the programmable hardware 206 comprises a field programmable gate array (FPGA) such as those available from Kilinx, Altera, etc." A field programmable gate array is a gate array where the logic network can be programmed into the device after its manufacture. An FPGA consists of an array of logic elements, either gates or lookup table RAMS, flip-flops and programmable interconnect wiring. FPGAs are especially popular for prototyping integrated circuit designs. However, once the design is finalized, hard-wired chips called ASICs are often used instead for their faster performance and lower cost.

The internal structure of an FPGA may be represented as follows:



Thus, Kodosky teaches utilizing a programmable **hardware element** that is **configured using a graphical program**. In contrast, the present invention recites, for example in claim 5, after the preamble:

providing a display window which can be divided vertically or horizontally;
displaying in a first partial window of the display window a hierarchical structure of the **at least one interface parameter of the software component** of the industrial automation system;
 selecting one interface parameter using a movable cursor; and
 displaying in a second partial window of the display window a detail display of the selected interface parameter, the detail display including a **display of at least one editable attribute of the selected interface parameter and allowing the editable attribute to be defined and parameterized.**
 (emphasis added)

At lines 18-21 of page 2 of the specification of the present invention, it recites: " The object of the present invention is to specify a particularly user-friendly method for VDU-based definition and parametrization of interfaces of the software components of an automation

system" (emphasis added). That is, the present invention does not specify utilizing conversion of graphical programs into hardware implementations, as is taught by Kodosky.

While Kodosky teaches **producing a hardware element**, in contrast, the present invention recites (see independent claims 5 and 12) display of and **defining and parameterizing** of at least one **editable attribute of a software component**. Thus, **Kodosky teaches away from the present invention** by teaching that a graphical program can be used to **provide hardware elements in an instrument**.

With respect to the Examiner's conclusion that, referring to claim 12, Kodosky discloses that a library of pre-compiled function blocks are used to aid in the compilation of the industrial automation system software so that changes to the interface parameters will determine the use of one or more function blocks of the software interface, it is respectfully submitted that a program library is a collection of (usually) precompiled, reusable programming routines that a programmer can "call" when writing code so that the programmer doesn't have to write the routine. That is, functions of precompiled, reusable programming routines are not "changed" by changing parameters, but rather represent individual specific, selectable routines. If a different routine is desired, a different precompiled reusable programming routine is written and placed in the library. Hence, it is submitted that the modification suggested by the Examiner is not how such changes are typically made.

While in hindsight, the Examiner has submitted that it would have been beneficial to have a user-friendly and intuitive mechanism for accessing and editing the hierarchy of sub-VIs, it is respectfully submitted that Chari does not teach such a mechanism. The genius of invention is often a combination of known elements, which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some "teaching, suggestion or reason" to combine cited references. Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed. Cir. 1997). When the art in question is relatively simple, as is the case here, the opportunity to judge by hindsight is particularly tempting. Consequently, the tests of whether to combine references need to be applied rigorously. See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999), limited on other grounds by In re Gartside, 203 F.3d 1305, 53 USPQ2d 1769 (2000) (guarding against falling victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher).

It is respectfully submitted that the courts have held that the Examiner may not suggest

modifying references using the present invention as a template absent a suggestion of the desirability of the modification in the prior art. *In re Fitch*, 23 U.S.P.Q.2d 1780, Fed Cir. 1992. Something in the prior art as a whole must suggest the desirability, and thus, the obviousness, of making the combination. *Alco Standard Corp. v. Tennessee Valley Authority*, 808 F. 2d 1490, 1 U.S.P.Q. 2d 1337 (Fed. Cir. 1986). When a rejection depends on a combination of prior art references, there must be some teaching, suggestion or motivation to combine the references. *In re Geiger*, 815 F.2d 686, 688 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987).

Thus, since there is no teaching or suggestion of combining Chari with Kodosky, and even if combined, the combination would not teach or suggest the present invention, it is respectfully submitted that independent claims 5 and 12 are not obvious under 35 U.S.C. §103 in view of USPN 6,046,742 (Chari) and USPN 6,219,628 (Kodosky et al.). Since claims 6-11 depend from claim 5, claims 6-11 are submitted to be non-obvious under 35 U.S.C. §103 in view of USPN 6,046,742 (Chari) and USPN 6,219,628 (Kodosky et al.) for at least the reasons that claim 5 is submitted to be allowable over same.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, it is respectfully submitted that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

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If there are any additional fees associated with the filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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